

## **ABSTRACT**

A wireless earphone communicates with a mobile phone by wireless and comprises a microprocessor, a feedback-type charging circuit and a rechargeable battery therein. The microprocessor output control signals to  
5 control the feedback-type charging circuit for charging the rechargeable battery; the feedback-type charging circuit also feeds back the charging current and charging states of the rechargeable battery to the microprocessor. Therefore, the microprocessor may change the charging current depending on the states of the rechargeable battery. By changing the voltage of the control signals, the  
10 charging current of the feedback-type charging circuit can be adjusted by the microprocessor. The present invention provides a charging design by software control to reduce the production cost of wireless earphone.